

Work Order ID: 81621

81621

Page 1

March-16-12 8:39:48 AM

Item ID: D2933-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Saddle LH In, 206

Stop *NS2*

Start Date: 16/03/2012 Start Qty: 10.00

10

Cust Item ID:

Required Date: 30/03/2012 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/03/16

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2933

Rev C

100

0.00

100

HAAS CNC VERTICAL MACHINING #1

FK 12/03/28

HAAS 1

0.00

10 4

HAAS CNC vertical machine #1

Memo

Program part number and batch number.1-Inspect part number and batch number are programmed correctly.2-Machine Step No 1 of Folio and visually inspect as per dwg D2933 & attached Dimension Sheet 3-Machine Step No 2 of Folio and visually inspect as per

110

0.00

110

CONVENTIONAL MILLING MACHINE

FK-12/03/28

Mill Conv

0.00

10 4

Conventional Milling Machine

Memo

Machine Keyway and inspect per attached dimension sheet

120

0.00

120

QC1 Inspect dimensions to dimension sheet

FK 12/03/28

QC

0.00

10 4

Quality Control

Memo

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR: Yes No** **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81621

March-16-12 8:39:48 AM

81621

Page 2

Item ID: D2933-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Saddle LH In, 206
 Start Date: 16/03/2012 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 30/03/2012 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00	B.A	12/03/29		10	0		
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				10	0	12-3-29	
150 *150* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo START TIME: 10h50 11h20 FINISH TIME: 320°F	0.00 0.00				10	0	12/03/30	

OVEN TEMPERATURE: m120222

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81621***81621***

Page 3

March-16-12 8:39:48 AM

Item ID: D2933-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Saddle LH In, 206

Start Date: 16/03/2012 Start Qty: 10.00

10

Cust Item ID:

Required Date: 30/03/2012 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC3- Inspect Part Finish

0.00

160

QC

Memo

0.00

Quality Control

10 PR 12-3-30

170

Identify as per dwg & Stock Location **ST 428**

0.00

170

Packaging

Memo

0.00

Packaging

10 12-03-30 8

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

12/4/2 9

CL 12/03/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-16-12 8:39:55 AM

Page 1

Work Order ID: 81621

81621

Parent Item: D2933-1

D2933-1

Parent Item Name: Saddle LH In, 206

Start Date: 16/03/2012

Required Date: 30/03/2012

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP: B00.06.26New DWG rev (mpp 2069)EC
IPP Rev:C As per Rev C 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-001		Manufactured	No			100	Each	65.0000	1	10			

D6101-001

Saddle Billet

**

PO 12/03/24

Location	Loc Qty	Loc Code
MAT040	3	
69677	2	
76836	1	
MAT041	50	
80764	50	
MAT045	12	
79586	12	

→ 80764

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	8/621
Description: 206 Saddle, Inboard, Left side		Part Number:	D2933-1
Inspection Dwg: D2933 Rev: C DSK: Rev:		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	0.100	0.140		.125	.125	.126	.125	.125
B	0.100	0.140		.126	.126	.127	.126	.127
C	0.100	0.140		.118	.117	.117	.117	.117
D	0.210	0.230		.223	.223	.223	.223	.223
E	1.245	1.255		1.250	1.250	1.250	1.250	1.250
F	1.245	1.255		1.250	1.250	1.250	1.250	1.250
G	2.495	2.505		2.500	2.500	2.500	2.500	2.500
H	0.510	0.515		.512	.512	.512	.512	.512
I	1.572	1.582		1.577	1.577	1.577	1.577	1.577
J	2.495	2.505		2.500	2.500	2.500	2.500	2.500
K	0.257	0.262		.260	.260	.260	.260	.260
L	0.312	0.317		.314	.314	.314	.314	.314
M	0.235	0.240		.236	.236	.236	.236	.236
N	0.100	0.140		.123	.123	.123	.123	.123
O	0.540	0.560		.550	.550	.550	.550	.550
P	0.490	0.510		.500	.500	.500	.500	.500
Q	3.715	3.725		3.720	3.720	3.720	3.720	3.720
R	2.470	2.510		2.492	2.492	2.492	2.492	2.492
S	0.240	0.270		.250	.250	.250	.250	.250
T	0.100	0.180		.135	.135	.135	.135	.135
U	1.625	1.635		1.630	1.630	1.630	1.630	1.630
V	1.362	1.372		1.367	1.367	1.367	1.367	1.367
W	0.316	0.321		.316	.316	.316	.316	.316
X	1.125	1.145		1.135	1.135	1.135	1.1345	1.135
Y	1.565	1.585		1.572	1.572	1.572	1.572	1.572
Z	0.178	0.198		.188	.188	.188	.188	.188
AA								
AB								
AC								
AD								
AE								
Accept/Reject								

Measured by: F.K.	Date: 12/03/28
Audited by: D.A.	Date: 12/03/29
Prototype Approval: N/A	Date: N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	06.10.03	Removed DT8683, DT8686 & DT8690	KJ/JLM	
D	07.03.21	Revised per drawing revision C	KJ/JLM	
E	08.01.16	DT8695 A/B removed from dimension Y	KJ/EC/DD	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD				Work Order: 81621	
Description: 206 Saddle, Inboard, Left side				Part Number: D2933-1	
Inspection Dwg: D2933 Rev: C DSK: Rev:				Page 1 of 1	

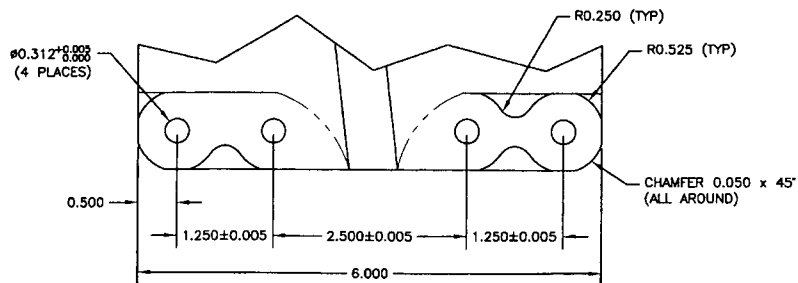
FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article
 ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6 X	7 X	8 X	9 X	10 X
A	0.100	0.140		.125	.125	.126	.125	.126
B	0.100	0.140		.127	.127	.128	.127	.127
C	0.100	0.140		.118	.117	.117	.115	.118
D	0.210	0.230		.223	.223	.223	.223	.223
E	1.245	1.255		1.250	1.250	1.250	1.250	1.250
F	1.245	1.255		1.250	1.250	1.250	1.250	1.250
G	2.495	2.505		2.500	2.500	2.500	2.500	2.500
H	0.510	0.515		.512	.512	.512	.512	.512
I	1.572	1.582		1.577	1.577	1.577	1.577	1.577
J	2.495	2.505		2.500	2.500	2.500	2.500	2.500
K	0.257	0.262		.260	.260	.260	.260	.260
L	0.312	0.317		.314	.314	.314	.314	.314
M	0.235	0.240		.236	.236	.236	.236	.236
N	0.100	0.140		.124	.124	.124	.124	.124
O	0.540	0.560		.550	.550	.550	.550	.550
P	0.490	0.510		.500	.500	.500	.500	.500
Q	3.715	3.725		3.720	3.720	3.720	3.720	3.720
R	2.470	2.510		2.492	2.492	2.492	2.492	2.492
S	0.240	0.270		.250	.250	.250	.250	.250
T	0.100	0.180		.135	.135	.135	.135	.135
U	1.625	1.635		1.630	1.630	1.630	1.630	1.630
V	1.362	1.372		1.367	1.367	1.367	1.367	1.367
W	0.316	0.321		.316	.316	.316	.316	.316
X	1.125	1.145		1.1355	1.1355	1.1355	1.136	1.136
Y	1.565	1.585		1.5735	1.5725	1.572	1.572	1.573
Z	0.178	0.198		.188	.188	.188	.188	.188
AA								
AB								
AC								
AD								
AE								
Accept/Reject								

Measured by: F.K.	Date: 12/03/28
Audited by: B.A.	Date: 12/03/29
Prototype Approval: N/A	Date: N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	06.10.03	Removed DT8683, DT8686 & DT8690	KJ/JLM	
D	07.03.21	Revised per drawing revision C	KJ/JLM	
E	08.01.16	DT8695 A/B removed from dimension Y	KJ/EC/DD	

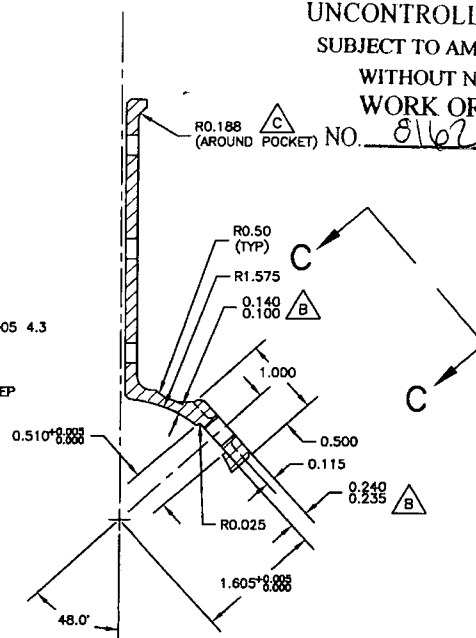


VIEW C-C

D2933-1 LH SADDLE (SHOWN)
D2933-2 RH SADDLE (OPPOSITE)

NOTES:

- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)
(MAKE FROM D6101-001 SADDLE BILLET, 7075)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP

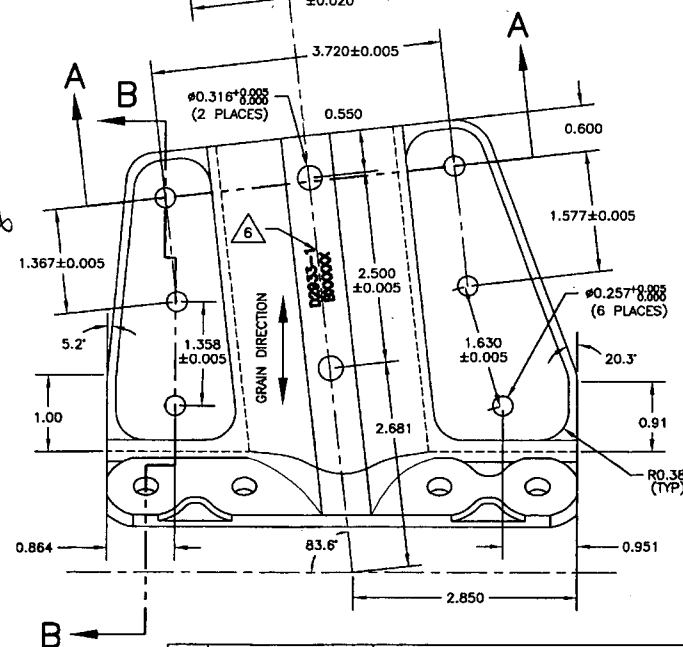


SECTION B-B

CHAMFER 0.050 x 45° AROUND
THIS SURFACE (TYP 2 PLACES)



SECTION A-A



C	06.11.09	R0.188 WAS R0.30 TO R0.25
B	00.05.29	CHANGED GEOMETRY AND MATERIAL
A	99.10.29	NEW ISSUE

COPYRIGHT © 1993 BY DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL
AND IS SUPPLIED ON THE EXPRESS CONDITION
THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE USA, INC.

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	REV. C
CHECKED	APPROVED	DRAWING NO.	SHEET 1 OF 1
DATE	TITLE	D2933	SCALE
06.11.09	SADDLE INSIDE		2:3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries